Integration Status Report

Dear Kristian,

This report is to provide an update on the progress of the [EZ Tracker](#) project to date. Its main focus is on the integration of the formerly independent hardware and software components into one cohesive unit.

Hardware Progress

As indicated in our last update, the aim is to integrate three sensors into one cohesive unit, operating on a single PCB. That hardware is also to integrate with an Android application working with an online database at the back end. At this point, we are still in the process of designing the PCB for the project, but hope to complete this task by the end of the week. This undertaking shouldn't be that difficult as we have already integrated a working prototype of the sensors on a single breadboard. We are also in the process of designing the enclosure to be sent to the prototype lab for production. Based on our hardware design, this process requires very little or no modification to the enclosure design used for our individual sensors. We already have the android application working with the database, but now need to have the individual hardware read and write data to and from the database. Since we aim for a compact hardware design, one of the challenges we were facing was to get the sensors to work in a distributed fashion on the PCB, rather than a stackable one. However, our conceptual design overcame that challenge.

Therefore, based on our current progress, the project is basically on track, as outline in our work breakdown [schedule](#), and also within [budget](#). Hence, at this point, we have met all our objectives as defined in our [proposal](#).

Challenges

A challenge we were having with the android app was to get the charts to display the dates correctly. We needed to determine how to manipulate the bar chart to get the current day of the week. This was required to display the current day on the right hand side of the graph. However, after much effort, we have resolved the problem and the charts are now presenting the inputted data correctly.

Regarding working with the sensors, we ran into issues trying to multi-process the sensors. We are in the middle of coding sensors working with one another and should have it completed within the next week.

Sincerely,

Team EZ Tracker